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Helminth Fauna of Bats in Japan III*

With 5 Text-figures

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ABSTRACT A new species of hymenolepid cestode from Japanese bats is described.

Three cestodes were discovered from the small intestines of twenty-four bats, *Rhinolophus cornutus*, collected October 9, 1966, and January 5, 1967, in an under-draining at Tarui in Gifu Prefecture. The cestodes were fixed in 5 per cent formalin and stained with Heidenhain's haematoxylin. The present specimens cannot be identified as any of the known species belonging to *Rodentolepis*, so they are described as a new species and the name *Rodentopelis taruiensis* n. sp. is proposed for them. All measurements are given in millimeter unless otherwise stated.

Rodentolepis taruiensis n. sp.

The present specimens are 67–73 long; a maximum width of about 1.8–2.0 is attained in mature proglottid. The margins of the strobila are serrate and the proglottides are always much broader than long. A developed scolex is present (Fig. 1); it measures 0.318–0.367 width by 0.277–0.301 length. The rostellum is fairly long, 0.194–0.0207 long by 0.111 wide, and is armed with 23 hooklets which are 0.032–0.035 in length (Fig. 2). The rostellar sheath is 0.124 by 0.235. The unarmed suckers are spherical and measure 0.098 by 0.091. The genital pores are unilateral and situated near the middle of the lateral margins of the proglottides (Fig. 3a). The cirrus pouch, very small, does not reach the longitudinal excretory canal. The cirrus is unarmed. Both internal and external seminal vesicles are present, but they are not very conspicuous. The internal seminal vesicle is 0.042 by 0.070. The testes are arranged in a transverse row, one poral and the other antiporal. The middle testis may overlap vitelline gland.

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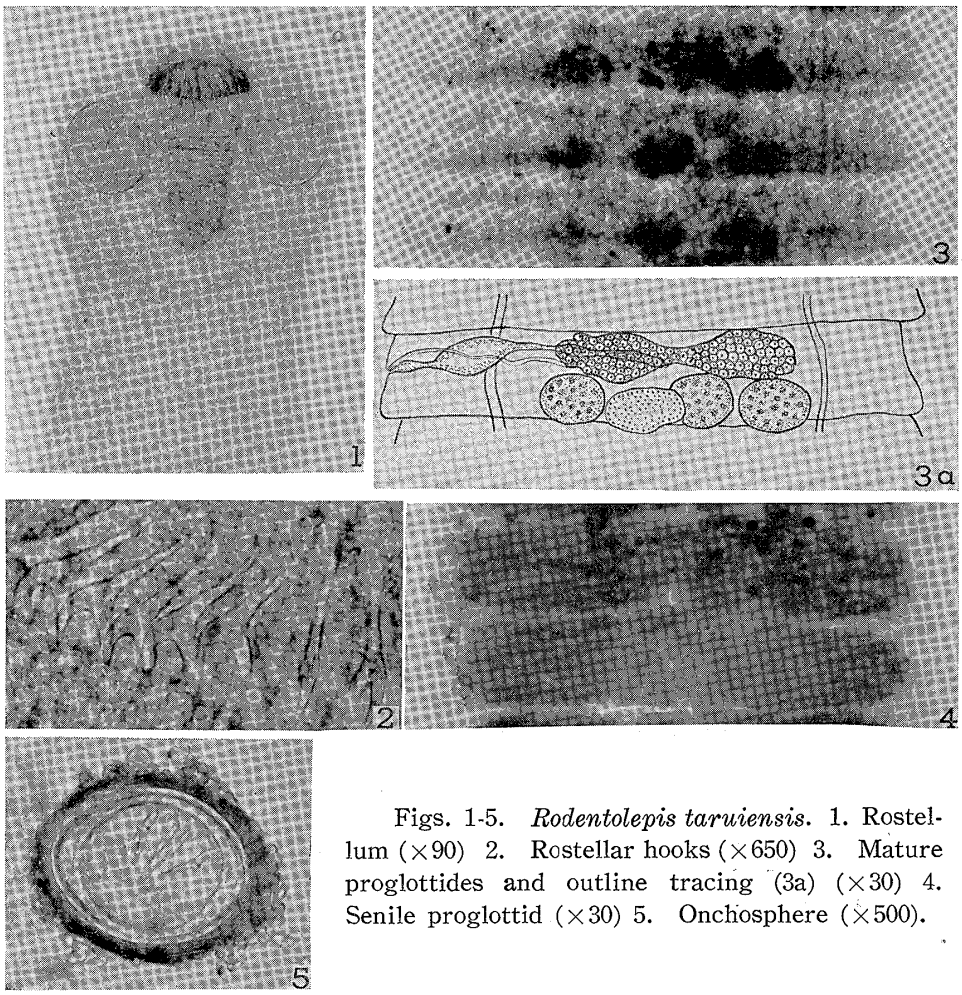

Figs. 1-5. *Rodentolepis taruiensis*. 1. Rostellum (×90) 2. Rostellar hooks (×650) 3. Mature proglottides and outline tracing (3a) (×30) 4. Senile proglottid (×30) 5. Onchosphere (×500).

The testis is 0.083–0.111 by 0.069–0.083. The ovary is irregularly shaped, transversely elongate, being situated in anterior portion of proglottid. The vitelline gland lies just posterior to the ovary; it measures about 0.055–0.069 long by 0.096–0.111 broad. The gravid uterus has many lobes and occupies the entire proglottid (Fig. 4). The egg is oval, with four additional membranes surrounding the onchosphere (Fig. 5); it measures 0.039–0.042 by 0.042–0.049. The outermost egg shell is 0.035 in thickness. The onchosphere is 0.021–0.025 by 0.021–0.025 and bears six embryonic hooks measuring about 0.014 long.

Remarks: The cestodes belonging to *Rodentolepis*, amounting to 25 species, are small to medium in size and have been reported as parasites in rodents and insectivores, and have never been found from the bats (Yamaguti, 1959). Table 1 gives the species which bear a resemblance in the number and length of rostellar hooks to the present species. *Rodentolepis taruiensis* n. sp. can be separated from these species either in number or in length of the rostellar hooks.

Host: *Rhinolopyus cornutus*

Habitat: Small intestine

Locality and Date: Tarui, Gifu Prefecture; October 9, 1966, and January 5, 1967

Type specimen: Biological Laboratory, Nara University of Education, Nara, Japan

Table 1

Species	Rostellar hook	
	number	Length
R. taruiensis n. sp.	23	0.032–0.035
R. asymmetrica (Janicki, 1904)	20–23	0.019
R. blarinae (Rausch et Kuns, 1950)	10	0.033
R. criceti (Janicki, 1904)	24	0.016
R. lineola (Oswald, 1951)	10	0.0308–0.0324
R. parva (Rausch et Kuns, 1950)	10	0.034–0.040
R. straminea (Goeze, 1782)	20–24	0.014–0.016
R. sinensis (Olham, 1929)	20	0.022–0.024
R. uncinispinosa (Joyeux et Bear, 1931)	10	0.034–0.037
R. virilis (Voge, 1955)	10	0.028–0.032

References

Rausch, R. and Kuns, M. L. 1950 J. Parasit., **36**, 433.
Yamaguti, S. 1959 Systema Helminthum. Vol. II. The cestodes of vertebrates. New York.